



Washington State Fire Marshal's Office

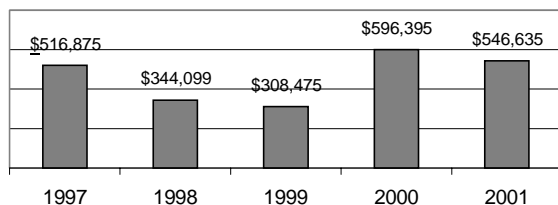
2001 Fireworks Statistical Report

There were 669 fireworks incidents reported to the State Fire Marshal in 2001 by fire departments and hospital emergency rooms.

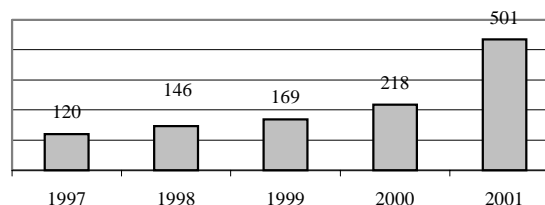
Reports Received	Total Agencies in WA	Agencies Reporting	Reports Received
Fire Departments	619	124	556
Hospital Reports	131	42	113
Totals	750	166	669

The number of reported fires associated with fireworks was 129% higher than those reported for 2000. This can be attributed to the increased number of departments reporting. These fireworks-related fires caused an estimated loss of \$546,635 a 9% decrease over 2000. It is interesting to note that fireworks related fires have steadily increased while fireworks-related injuries have decreased.

Fireworks Fire Loss



Fireworks Fire Incidents



Based on the reports received, illegal fireworks were identified as the cause in 31% of all reported fireworks-related fires \$340,830 in losses or 62% of the estimated total loss from fireworks-caused fires. Legal fireworks were identified in 21% of the reported fires with a loss of \$90,730. In the remaining 48% of the fires, the type of fireworks was not identified by the fire departments.

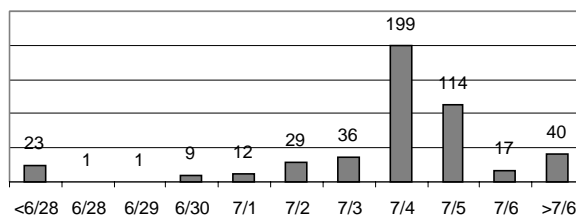
Type of Fire	Status of Fireworks Device			
	Legal	Illegal	Unidentified	Total
Vegetation/Wildland	80	118	142	340
Residential	14	28	23	65
Commercial	10	4	5	19
Vehicle	0	0	5	5
Other	4	5	63	72
Totals	108	155	238	501

Wildland areas are at great risk from fires caused by fireworks. Of the fire incidents reported, 66% resulted in wildland fires, with a fire loss of \$8,800. 3% were commercial fires with a fire loss of \$214, 800 and 13% were residential fires with the greatest fire loss of \$312,460.

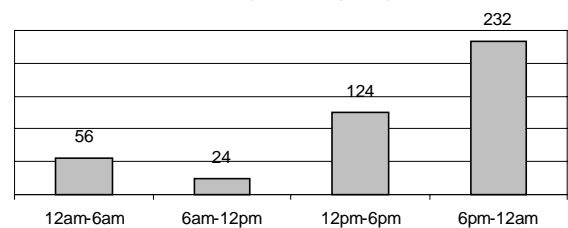
Type of Fire	Amount of Loss by Status of Fireworks Device			
	Legal	Illegal	Unidentified	Total
Vegetation/Wildland	\$1,850	\$3,150	\$3,800	\$8,800
Residential	\$86,180	\$125,330	\$100,950	\$312,460
Commercial	\$2,700	\$212,000	\$100	\$214,800
Vehicle	\$0	\$0	\$5,100	\$5,100
Other	\$0	\$350	\$5,125	\$5,475
Totals	\$90,730	\$340,830	115,075	\$546,635

Fires and injuries by date clearly indicate that fireworks incidents most often occur on the date that they are most widely used, July 4.

Fires by Date

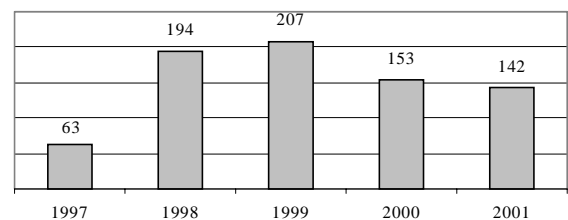


Fires by Time of Day

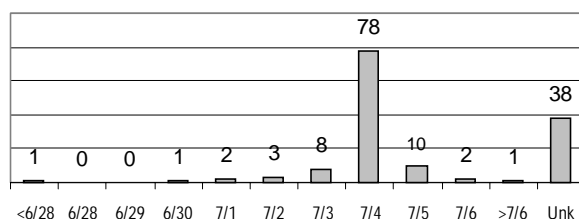


The number of fireworks related injuries reported for 2001 was 142, 6% lower than 2000. The number of hospitals reporting fireworks-related injuries was 18% lower. The date and time of day most injuries occurred was on July 4 between 6 p.m. and midnight.

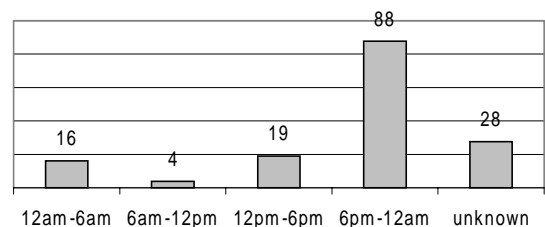
Fireworks-Related Injuries



Injuries by Date



Injuries by Time of Day



The most common places injured were the face and hand (see Table #1). The type of injury caused most often was burns at 68%. The next leading injury was trauma at 29% and next was amputations 3% (see Table #2). Some reports indicated more than one type of injury and/or more than one body part injured.

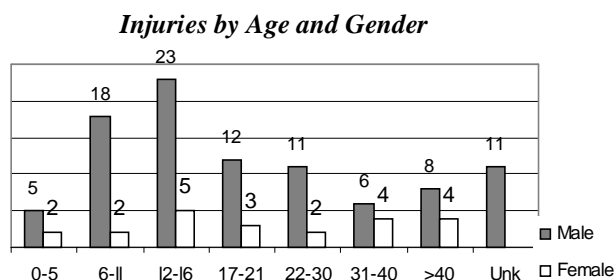
<i>Body Part Injured - Table #1</i>				
<i>Body Part</i>	<i>Legal</i>	<i>Illegal</i>	<i>Unknown</i>	<i>Total</i>
Face/Head	14	35	10	59
Eye	3	2	3	8
Hand/Fingers	19	35	4	58
Arm	2	9	5	16
Leg/Foot	12	5	2	19
Torso	1	5	4	10
Totals	51	91	28	170

<i>Type of Injury – Table #2</i>				
<i>Type of Injury</i>	<i>Status of Firework</i>			<i>Total</i>
	<i>Legal</i>	<i>Illegal</i>	<i>Unknown</i>	
Burn 1st Degree	42	39	11	92
Burn 2 nd Degree	3	3	3	9
Burn 3 rd Degree	1	0	1	2
Trauma	7	32	5	44
Amputation	0	4	0	4
Totals	53	78	20	151

Table #3 shows the types of fireworks devices that were involved in these incidents. Illegal fireworks were the cause of 68 injury incidents or 47% while legal fireworks were responsible for 54 incidents or 37%. Of the 54 incidents with legal devices, sparklers candles caused 26 or 48% of the incidents followed by roman candles at 10 incidents.

<i>Injury by Type of Device – Table #3</i>	
Legal	# of Incidents
Sparkler	26
Roman Candle	10
Base Fountain	4
Ground Bloom Flower	3
Smoke Bomb	3
Punk	3
Wheel	2
Cone Fountain	2
Jumping Jack	1
Party Popper	0
Total	54
Illegal	# of Incidents
Firecracker	17
Homemade Explosive Device	12
Bottlerocket	11
Public Display Mortars	9
M60-M200	7
Missile Rocket	4
Cherry Bomb	4
Altered Fireworks	2
Sky Rocket	2
Total	68
Unknown	20
Total	142

The information shown on the chart below can help target an audience. This chart shows males between the ages of 6 and 16 years old are at greatest risk of fireworks related injuries.



The leading cause of fireworks-related injuries is holding followed closely by throwing. These are the behaviors that need to be changed to prevent these fireworks-related injuries.

Cause of Injury

Holding	35
Throwing	25
Altered/Tampering	11
Surface	9
Leaning	8
Delayed Ignition	7
Other/unknown	47
Total	142

All Incidents by County

County	Fire Depts Reporting	*Reports Received	Hospitals Reporting	Reports Received	Total Reports	Injury Incidents	Fire Incidents
Asotin	1	1	1	2	3	1	0
Benton	2	6*	1	4	10	6	3
Chelan	4	14*	0	0	14	1	12
Clallam	1	12	0	0	12	0	12
Clark	5	8*	3	7	15	8	6
Cowlitz	2	2	0	0	2	0	2
Douglas	1	1	0	0	1	0	1
Franklin	2	2	1	1	3	1	2
Grant	7	34*	1	1	35	2	29
Grays Harbor	7	12*	3	8	20	8	9
Island	2	11	1	1	12	1	11
Jefferson	2	6*	1	1	7	2	3
King	13	127	5	19	146	30	116
Kitsap	3	20	2	2	22	2	20
Kittitas	3	13	1	5	18	5	13
Lewis	3	3*	4	5	8	6	1
Lincoln	2	2*	0	0	2	0	0
Mason	4	13*	0	0	13	0	10
Okanogan	4	13	0	0	13	0	13
Pacific	2	6	1	2	8	2	6
Pierce	12	57	4	10	67	14	53
Skagit	4	16*	0	0	16	0	15
Skamania	1	1*	0	0	1	0	0
Snohomish	11	41*	6	26	67	30	36
Spokane	7	51	1	1	52	1	51
Stevens	0	0	1	1	1	1	0
Thurston	7	22	2	5	27	8	19
Walla Walla	1	3	1	4	7	4	3
Whatcom	3	4	1	7	11	9	2
Whitman	2	2*	1	1*	3	0	0
Yakima	6	53	0	0	53	0	53
Totals	124	556	42	113	669	142	501

*23 agencies reported no incidents

Some hospitals reported for more than one county, total hospitals is 31